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17th International Symposium, ISAAC 2006
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Preface

ISAAC 2006, the 17th International Symposium on Algorithms and Computation took place in Kolkata, India, December 18–20, 2006. It has been held in Tokyo (1990), Taipei (1991), Nagoya (1992), Hong Kong (1993), Beijing (1994), Cairns (1995), Osaka (1996), Singapore (1997), Taejeon (1998), Chennai (1999), Taipei (2000), Christchurch (2001), Vancouver (2002), Kyoto (2003), Hong Kong (2004), and Hainan (2005).

The symposium provided a forum for researchers working in algorithms and the theory of computation from all over the world. In response to our call for papers, we received 255 submissions. The task of selecting the papers in this volume was carried out by our Program Committee and many other external reviewers. After a thorough review process and PC meeting, the committee selected 73 papers. We hope all accepted papers will eventually appear in scientific journals in a more polished form. Two special issues, one of *Algorithmica* and one of the *International Journal of Computational Geometry and Applications*, with selected papers from ISAAC 2006 are in preparation.

The best paper award was given for “Algorithmic Graph Minor Theory: Improved Grid Minor Bounds and Wagner’s Contraction” by Erik Demaine, MohammadTaghi Hajiaghayi and Ken-ichi Kawarabayashi. The best student paper award was given for “Branching and Treewidth Based Exact Algorithms” by Serge Gaspers, Fedor Fomin and Saket Saurabh. Two eminent invited speakers, Kazuo Iwama, Kyoto University, Japan, and Tamal K. Dey, The Ohio State University, USA, also contributed to this volume.

I would like to thank the Conference Chair, Bhargab B. Bhattacharya and the Organizing Chair, Subhas C. Nandy, for their leadership, advice and help on crucial matters concerning the conference. I would like to thank the Program Committee and many external reviewers for their great efforts in the review process. I also thank the Advisory Committee members of ISAAC for their continuous encouragement.

Finally, I would like to acknowledge the EasyChair system, which is a free conference management system that is flexible, easy to use, and has many features to make it suitable for various conference models. Without the help of EasyChair, we could not have finished our review process within the deadline of notification.

December 2006

Tetsuo Asano
Program Chair
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Message from the Conference Chair

It was our great pleasure to welcome you to the 17th Annual International Symposium on Algorithms and Computation (ISAAC 2006), which was held for the first time in Kolkata (formerly known as Calcutta), during December 18–20, 2006. This is the second ISAAC meeting organized in India; the first one was held in the city of Chennai in 1999. This symposium provided an excellent opportunity for sharing thoughts among the participants on the recent advances in algorithm design and their manifold applications to emerging areas. Thanks go to the members of the Advisory Committee of ISAAC for their concurrence to hold this symposium in Kolkata.

We would like to express our sincerest thanks to the invited speakers, Kazuo Iwama of the Kyoto University, Japan, and Tamal K. Dey of the Ohio State University, USA, who kindly agreed to speak on the frontier topics in algorithms and computation theory.

We are immensely grateful to Tetsuo Asano of the Japan Advanced Institute of Science and Technology, the Program Chair of the symposium, for compiling an outstanding technical program. On the advice of an excellent Program Committee of international experts, he followed stringent criteria for selecting only the very best technical papers out of a large number of submissions in order to preserve the high quality of the technical program of the symposium.

Our sincerest thanks are due to Sankar K. Pal, Director of the Indian Statistical Institute, for his support in co-sponsoring the symposium and for providing financial and infrastructural support. We also thank Anupam Basu of the Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur, for endorsing institutional cooperation. We also acknowledge, with thanks, the support we received from the Indian Association of Research in Computing Sciences (IARCS) for co-hosting the symposium. The financial support received from the Department of Science and Technology, Council of Scientific and Industrial Research, Reserve Bank of India, the Department of Information Technology of the Govt. of West Bengal, Capgemini Consulting India Private Limited, Tata Consultancy Services, IBM India Software Laboratory, Cognizant Technology Solutions, and Anshin Software for sponsoring various events, are also thankfully acknowledged.

We are also grateful to the local Organizing Committee for their excellent services that made the symposium a grand success.

We take this opportunity to extend our heartfelt thanks to all the participants, the authors, the reviewers, and the volunteers, who helped us immensely to make this symposium a success. We earnestly hope that the participants

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of the symposium enjoyed their stay in the wonderful and culturally vibrant city of Kolkata.

December 2006

Bhargab B. Bhattacharya
Indian Statistical Institute, Kolkata, India
Conference Chair
ISAAC 2006

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